

TRAGOPOGON

T. PRATENSIS, L. Herb. E. F. Williams, 1898.

HIERACIUM

H. AURANTIACUM, L. This plant, elsewhere a noxious weed, is apparently not spreading, as was feared.

H. scabrum, Michx.

TARAXACUM

T. OFFICINALE, Weber.

SONCHUS

S. ASPER, Vill.

S. ARVENSIS, L. Mrs. Brucke, 1899.

LACTUCA

L. Canadensis, L.

L. Canadensis, L., var. integrifolia, Gray. *L. sagittifolia*, Ell.

L. hirsuta, Muhl.

L. leucophaea, Gray. *L. spicata* (Lam.) Hitchc.

PRENANTHES

P. trifoliolata, Fernald, var. nana, Fernald. *Nabalus nana* (Bigel.) DC. Collected by Dr. H. H. Rusby in 1892 on the top of Willoughby Mountain and not reported since that date. Herb. H. H. Rusby.

P. altissima, L. *Nabalus altissimus* (L.) Hook. Very common.

READVILLE, MASSACHUSETTS.

THE IDENTITY OF MICHAUX'S LYCOPUS UNIFLORUS.

M. L. FERNALD.

IN a recent manual of the northern flora the plant which has generally passed as *Lycopus virginicus*, L., is divided into two leading groups. The first with leaves mostly ovate and the base of the stem not tuberous contains a single species, which is identified with reasonable certainty as *L. virginicus*; the other group, with leaves mostly lanceolate to oblong and with the bases of the stems tuberous, contains plants which are treated without reservation as two new species: *L. communis*,¹ a firm-leaved plant of "moist soil," and *L. membranacea*,¹

¹ Bicknell in Britton, Man. (1901) 803, 804.

a larger thin-leaved plant of "wet woods." With the exception of a corolla-distinction which proves very inconstant in material examined, the characters by which these two narrow-leaved tuberous-based plants are separated are such that it would seem quite impossible to distinguish from *L. membranacea* large shade states of *L. communis*, while on the other hand it would appear equally difficult to distinguish from *L. communis* open-soil states of *L. membranacea*.

This attempt, however, to distinguish the shade state of the northern plant from the smaller firmer-leaved plant of open moist soil was made more than seventy years ago, while Michaux, more than a century since, recognized that the northern tuberous plant was specifically separable from the rarely tuberous *L. virginicus* of the South.

Michaux's material of *Lycopus uniflorus*,¹ as represented in his herbarium at the Jardin des Plantes in Paris, consists of four small specimens with the characteristic tuberous bases, but all very immature, only one of the plants beginning to show young flowers — hence the specific name. The specimens came from near Lake St. John in Quebec and except that they are very immature they are closely matched by specimens of the common northern plant collected in Cape Breton by John Macoun and distributed as no. 20,023 from the Herbarium of the Geological Survey of Canada.

Immediately after the publication of Michaux's Flora, Vahl described *Lycopus pumilus*.² This was based alone upon Michaux's material in the herbarium of Jussieu (Jardin des Plantes) and Michaux's description of *L. uniflorus* was quoted. The only supplementary information furnished by Vahl was that the plant had lanceolate (rather than oval), subserrate (rather than dentate) leaves, and procumbent small stolons.

In 1833 Bentham, likewise, recognized the Michaux plant, as *Lycopus virginicus*, β *pauciflorus*,³ citing both *L. uniflorus* and *L. pumilus* as absolute synonyms; and an interesting sheet from the herbarium of the late Jacques Gay, now preserved in the herbarium of the Royal Gardens at Kew, shows that Gay appreciated the distinctions between the northern and the southern plants which have passed in America as *Lycopus virginicus*. The original label in Gay's handwriting reads:—

¹ L. "UNIFLORUS. L. pusillus, radice tuberosa: caulibus simplicibus: foliis ovalibus, obtusis, obsolete dentatis: axillis unifloris. Hab. ad Lacus S-Joannis et Mistassins." — Michx. Fl. i (1803) 14.

² Vahl. Enum. i (1804) 211. ³ Benth. Lab. (1833) 185.

"*Lycopus virginicus* La Pyl. Herb. non Linn. nec auct. amer. *L. uniflorus* Mich.= *L. pumilus* Vahl. Pursh Fl. 1. p. 16 (?) differt à *virginica*, radice saepe tuberosa, verticillis paucifloris, calyce 5-non 4-dentate.

Terra Nova.—La Pylaie dedit Jun. 1828."

In July, 1839, after the publication of Bentham's monograph, Gay supplemented this label as follows:—

"*Lycopus Virginicus* β pauciflorus, *Benth. Lab.* (1832) p. 185. *L. uniflorus* Mich.

Radix tuberosa ! dentes calycini 4, obtusi."

Thus it is quite clear that by certain European botanists our northern plant recently described as *L. communis* was early distinguished from the more southern *L. virginicus*.

The plant described by Bentham as *Lycopus macrophyllus*¹ and afterward treated by Dr. Gray as a large-leaved form² of *L. virginicus*, while *L. uniflorus* (*L. communis*) was treated as a diminutive form³, was collected by Scouler on the Straits of Juan de Fuca (between Washington and Vancouver). The original material in the Hooker Herbarium is identical with the large-leaved plant collected by Lyall on the Oregon Boundary Commission near the 49th parallel of latitude (near the border of Washington and British Columbia), and another distributed by Elihu Hall as no. 395 from Oregon. These plants of Scouler, Lyall, and Hall are clearly a large-leaved phase of the common *L. uniflorus* (or *L. communis*, which by its author is said to extend west to British Columbia and Oregon). The large-leaved western plant is furthermore inseparable from New England specimens which must represent *L. membranacea* of "wet woods"; and since there is good reason to believe that this plant of the East is only a shade-phase of *L. uniflorus* or *L. communis* of "moist soil," the nomenclatorial history of the northern *Lycopus* with thick white tubers should be stated as follows:

LYCOPUS UNIFLORUS, Michx. Fl. i. (1803) 14. *L. pumilus*, Vahl. Enum. i. (1804) 211; Pursh, Fl. i. 16. *L. virginicus*, authors, in part, not *L. L. virginicus*, β pauciflorus, Benth. Lab. (1833) 185

¹ Benth. l. c.

² "Forma procera, var. MACROPHYLLUS: *L. macrophyllus*, Benth." Gray, Proc. Am. Acad. viii. (1870) 285.

³ "Forma depauperata: *L. uniflorus*, Michx. *L. pumilus*, Vahl." Gray. l. c.

& in D. C. Prodr. xii (1848) 177. *L. macrophyllus*, Benth. ll. cc. (1833, 1848). *L. virginicus*, var. *macrophyllus*, Gray, Proc. Am. Acad. viii. (1870) 285 & Syn. Fl. ii. pt. 1, 353. *L. communis*, Bicknell in Britton, Man. (1901) 803; Small, Fl. 1048. *L. membranacea*, Bicknell, l. c. (1901) 804.

GRAY HERBARIUM.

ADDENDA TO THE FLORA OF VERMONT.

W. W. EGGLESTON (revised by E. BRAINERD).

SINCE the publication of the Vermont Flora¹ in 1900 there has been a marked increase of interest in botanical field-work in various localities of the State, resulting in the discovery of many additional species and varieties. At the same time several of the more difficult genera of the Northeastern United States have been diligently worked over by specialists, and many old species have been divided into two, or several, or many species. Though in some cases the status of the proposed species is as yet somewhat uncertain, they have nevertheless been admitted with considerable freedom into this provisional list as plants that challenge for the time being the observation and criticism of the field botanist.

It is expected that within two years a new edition of the Vermont Flora will be published, and any further additions or corrections will be most gratefully appreciated; they may be communicated to the writer, or to the President of the Vermont Botanical Club, Ezra Brainerd of Middlebury, or to its Secretary, L. R. Jones of Burlington.

INDIGENOUS OR WELL-ESTABLISHED PLANTS.²

Aspidium acrostichoides, Swartz, var. *incisum*, Gray. Occasional. A form of this with crisp edges also occurs: Greensboro, *Miss H. M. Hodge*; Burlington, *Mrs. F. A. Richardson*.

¹ Brainerd, Jones & Eggleston, Flora of Vermont (Contributions to the Botany of Vermont, viii). Burlington, 15 December, 1900.

² As in the Flora of Vermont, the names of plants indigenous in North America are printed in full face type and those of species introduced from the Old World in small capitals.